

# GEOGRAPHIC INFORMATION SYSTEMS IN TRANSPORTATION SAFETY

## Invited Panelist Biographies

### Panel 1: Opening Panel

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**Reginald R. Souleyrette, Ph.D., P.E.**

**Commonwealth Chair Professor of Transportation Engineering  
University of Kentucky**

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Dr. Souleyrette is the Commonwealth Professor of Civil Engineering at the University of Kentucky, where he also serves as a program manager for the Kentucky Transportation Center. He joined UK following 18 years at Iowa State University. He currently serves as chair of the Transportation Research Board's Data and Information Technology Section and has served as co-chair of the GIS Applications and Science Committee. Following his term as chair of the Data Section, Reg will pursue cross-committee safety data initiatives for TRB. He holds a BS and MS in civil engineering from the University of Texas and a PhD in Transportation Engineering from UC Berkeley.

**Stephen M. Lewis**

**Director of Geospatial Information Systems  
Research and Innovative Technology Administration  
Bureau of Transportation Statistics  
U.S. Department of Transportation**

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Stephen M. (Steve) Lewis is the Geospatial Information Officer (GIO) at the United States Department of Transportation (USDOT). As GIO, he coordinates geospatial activities across USDOT and ensures that USDOT meets its obligations to the National Spatial Data Infrastructure. In addition to these duties, he is also the Director of the Office of Geospatial Information Systems within USDOT's Research and Innovative Technology Administration/Bureau of Transportation Statistics. Over his 25 year career, he has also worked at the Federal Highway Administration and the National Imagery and Mapping Agency. Mr. Lewis has a Bachelor of Science degree in Industrial Engineering and Operations Research and a Master of Engineering degree in Civil Engineering, both from Virginia Tech.

## **Panel 2: Multi-modal Data and Technology Panel**

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### **Nadine Alameh, Ph.D.**

**Director - Interoperability Programs**

**Open Geospatial Consortium**

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Dr. Alameh is Director of Interoperability Programs at the Open Geospatial Consortium (OGC), a non-profit, international, voluntary consensus standards organization. Dr. Alameh focuses on planning and managing multi-vendor software prototyping and pilot initiatives to advance geoinformatics. Dr. Alameh is a leader in the field of geospatial interoperability with a proven track record in architecting and implementing geospatial technologies, standards and web services. Her current engagements include leading the (OWS-9), a global web prototyping activity in the areas of security, aeronautical information management, mobile application development, and compliance testing.

### **Michael Ratcliffe**

**Assistant Division Chief – Geocartographic Products and Criteria**

**U.S. Census Bureau**

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Michael Ratcliffe is Assistant Division Chief for Geocartographic Products and Criteria, Geography Division, U.S. Census Bureau. He is responsible for programs related to the development of geographic area concepts and criteria, cartographic products, TIGER/Line shapefiles, and other geographic information products. In his tenure at the Census Bureau he has worked in both the Geography and Population Divisions, with a primary focus on geographic area concepts and criteria. Mr. Ratcliffe holds degrees in geography from the University of Maryland and the University of Oxford.

### **George Gonzalez**

**Technology & ATC Products Group**

**FAA**

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George Gonzalez is the Production Systems Team Manager at Mike Monroney Aeronautical Center (MMAC). He has managed the Eastern Flight Procedures Branch and the Army/International Flight Procedures Branch. He has been with the FAA for 14 years. Prior to joining the FAA, Mr. Gonzalez served twenty years in the United States Air Force as an Air Traffic Controller. He received an associate degree in Airway Science from the Community College of the Air Force (CCAF).

**Jeffrey J. Danielson****Physical Geographer****U.S. Geological Survey (USGS)****USGS Earth Resources Observation & Science (EROS) Center****Topographic Sciences**

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Jeff Danielson is employed by the U.S. Geological Survey (USGS) at the Earth Resources Observation and Science (EROS) Center in Sioux Falls, South Dakota as a physical geographer. Jeff has been engaged in topographic science research for over 17 years and has an extensive background in working with geographic information systems technologies, image processing, and digital terrain models. His current research is focused on developing high-resolution topobathymetric elevation models derived from both LIDAR (topography) and bathymetric (water depth) data sources that will provide a seamless elevation product useful for applications such as, modeling sea level rise, storm surge, and sediment transport.

**Mark A. Skoog****Integrated Test Team for the Automatic Collision Avoidance Technology (ACAT)****Dryden Flight Research Center****NASA**

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Mark Skoog works for NASA's Dryden Flight Research Center at Edwards AFB in California. He is currently leading the Collision Avoidance Technical Stewardship Group for the Office of the Secretary of Defense and the Integrated Test Team for the Automatic Collision Avoidance Technology (ACAT) projects. He has managed numerous UAV efforts for NASA and the Air Force. His technical background stems from early days of research and development on the AFTI/F-16 and B-2 aircraft, including the integration of flight controls and avionics for high authority autopilots to automatically accomplish all phases of fighter combat missions. More recently, He conducted the Automatic Ground Collision Avoidance System, and Automatic Air Collision Avoidance System testing on the F-16, and led the ACAT Fighter Risk Reduction Project. Mark has a BS in aerospace engineering from Cal Poly San Luis Obispo.

## **Panel 3: Aviation Safety Panel**

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### **Michael T. McNerney, Ph.D., P.E.**

**Assistant Manager, Airport Engineering Division, AAS-100**

**Federal Aviation Administration**

**Office of Airport Safety and Standards**

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Dr. McNerney is the assistant manager of the Airport Engineering Division, of the FAA Office of Airport Safety and Standards. Prior to that, he was an airport consultant with AECOM for 9 years. He served 17 years in the US Air Force as pilot, instructor, commander, and civil engineer where he lead the pavement portion of the US Air Force rapid runway repair research effort for 3 years. He is experienced in the areas of Airport Planning, Airport Noise, Airport Geographical Information Systems (GIS), D-GPS Satellite Navigation Systems, Aerial Photography, and Environmental Planning and is an industry leader in Geospatial Airport Pavement Management Systems and Airport Aircraft Compatibility. He has authored over 60 publications related to air and ground transportation research and pavement evaluation. He has served as supervisor of flight operations at three Air Force Bases. He received his Ph.D. in Civil Engineering at the University of Texas at Austin.

### **Dejan Damjanovic**

**Director**

**Air and Marine Solutions**

**GeoEye**

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Dejan Damjanovic is a graduate of Concordia University's school of Engineering and Computer Science. For most of the last decade, he has led the Airport/eTOD team at GeoEye in mapping over 3,500 airports for the US DOD, and is spending the coming decade doing the same for the world's commercial airports. He is a principal co-author of three industry standards on Airport Mapping (RTCA DO-272), Electronic Terrain and Obstacle (RTCA DO-276), and Aeronautical Information Exchange (RTCA DO-291). Mr. Damjanovic has spoken at many industry events such as MAPPS, ION, ESRI, and most recently at the ICAO PBN Summit in Montreal. He is a licensed Commercial, Multi-Engine pilot in the USA and Canada.

### **Christopher Knouss**

**Geospatial Computing Specialists**

**MITRE**

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Mr. Chris Knouss is a Principal Geospatial Computing Specialist at MITRE since 2004 and has over 12 years' experience in GIS and geographic sciences. His work and research interests are primarily focused on the application, training, and development of interdisciplinary geospatial technologies that include geospatial application development, cartography, visualization, modeling, analysis, data services, cloud computing, and remotely sensed technologies. Mr. Knouss has supported geospatial initiatives across the aviation, health, environmental, security, housing, local government, and criminal justice domains. Mr. Knouss has a MA in Geography from the University of Maryland and was an ESRI certified instructor for 4 years.

**Rich Fosnot**  
**Senior Manager**  
**Aviation and Marine Safety**  
**Jeppesen**

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Mr. Fosnot is the Senior Manager for Aviation and Marine Safety at Jeppesen. He supports a variety of aviation industry safety initiatives through his participation in training, accident investigation, and safety management committees working groups. Mr. Fosnot is also an experienced commercial pilot and flight instructor.

## **Panel 4: Highway Safety Panel**

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### **Craig P. Thor, Ph.D.**

**Research Civil Engineer – Office of Safety R&D  
Federal Highway Administration**

Dr. Craig Thor is Research Civil Engineer at the Federal Highway Administration (FHWA) in the Office of Safety Research and Development. He received his Ph.D. in biomedical engineering with a focus on crash injury biomechanics and the associated epidemiology from Virginia Tech. He has extensive experience in the areas of crash causation, data analysis, and data collection. At FHWA, Dr. Thor serves as the lead in the area of GIS research. His efforts in this area largely focus on the identification and development of effective research tools that will assist State and local governments to improve their GIS-based data systems to make informed safety improvement decisions. In addition to his work related to GIS, he also manages the FHWA Motorcycle Crash Causation Study, the Strategic Initiative for the Evaluation of Reduced Lighting on Roadways, and is serving as an advisor to an NRC Fellow who is exploring the development of surrogate crash measures using the SHRP2 naturalistic driving data.

### **Matthew Barth, Ph.D.**

**Professor of Electrical Engineering  
University of California, Riverside**

Matthew Barth is a Professor of Electrical Engineering at UC Riverside, holds the Yeager Family Chair, and is also the Director of the College of Engineering Center for Environmental Research and Technology (CE-CERT). Dr. Barth's research focuses is in Transportation Systems, particularly how it relates to energy and air quality issues. Current research interests include Intelligent Transportation System Technology, Transportation/Emissions Modeling, Vehicle Activity Analysis, and Vehicle Navigation.

### **John Bigham**

**GIS Program Manager  
University of California - Berkeley**

John Bigham is the GIS Program Manager at the UC Berkeley Safe Transportation Research and Education Center (SafeTREC). His background is in Geographic Information Systems (GIS) design and analysis and he manages GIS-related activities at SafeTREC, including spatial analysis, web mapping and database development. He is currently the project director for the Transportation Injury Mapping System (TIMS), a web site that provides tools to view, query and spatially explore collision data. He previously worked at the Environmental Systems Research Institute (ESRI) as a Product Engineer.

## **Woodland Wilson**

### **Baltimore County Police Department**

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Woodland “Butch” Wilson joined the Baltimore County Police Department in April 1990 after serving four years in the USMC. He has served at various ranks in criminal investigations, narcotics, traffic, patrol, internal affairs, and strategic planning. In September 2007 he was promoted to the rank of Captain and spent the next several years as a precinct commander, overseeing his command’s DDACTS program and utilizing GIS products to target criminal activity and repeat offenders. In July 2012, Captain Wilson was assigned as the commander of the Operational Support Section and oversees units such as traffic management, crash investigations, SWAT, and K9. Captain Wilson is a graduate of the Johns Hopkins University Police Executive Leadership Program and holds BS and MS degrees in Management.

#### **Co-authors:**

##### **Joseph Donahue**

Sergeant Joseph Donohue is an 18-year veteran of the Baltimore County Police Department and has served in various assignments including patrol, traffic, and criminal investigations. He is a Level III Crash Reconstructionist with experience responding to traffic crashes both as a police officer and volunteer Firefighter / Rescue Specialist / Emergency Medical Technician. Sergeant Donohue has been involved in various aspects of the department’s DDACTS program since its beginnings as the Crash/Crime Initiative in 2007. He currently is assigned to the Traffic Management Unit and oversees the department’s implementation of the program. Sergeant Donohue also works as an adjunct instructor for the National Highway Traffic Safety Administration, delivering DDACTS Implementation Workshops to other law enforcement agencies throughout the United States. Sergeant Donohue was recognized by the Maryland Police and Correctional Training Commission as a Traffic Safety Specialist in 2012. He is currently attending American Military University, working to complete his BA degree in Criminal Justice.

##### **Emily N. Varga**

Mrs. Emily N. Varga received a BS in Geography from the University of Maryland, Baltimore County in 2007. She began working as a Statistical Analyst with the Planning and Crime Analysis Unit of the Baltimore County Police Department in 2007. In 2009, she transferred within the Crime and Traffic Analysis Team from Scanning and Forecasting to the Traffic Accident Analysis to research and analyze statistical patterns and trends of traffic accidents and driving violations. The reports she produces are used internally by the Police Department to determine the most effective deployment of its traffic resources and to evaluate traffic initiatives. Currently, Mrs. Varga is working closely with Traffic Resources Management of Baltimore County Police on the Data Driven Approaches to Crime and Traffic Safety (DDACTS) initiative. Mrs. Varga, along with other department members involved in the DDACTS initiative, received the Department’s Traffic Safety Award in 2010.

**Stephen Troutman**

Lieutenant Stephen Troutman is a 25-year veteran of the Baltimore County Police Department and has served in multiple assignments, including patrol, internal affairs, training, and records management. As a sergeant, he was selected to lead one of the department's newly formed Community Action Teams, which are strike teams designed to be deployable in high-crime and/or crash areas. Lieutenant Troutman was assigned to the Operational Support Section as the K9 commander in 2010 and in October 2012 became the Traffic Management Unit commander. During his time in OSS, Lieutenant Troutman has, at various times and in addition to K9, supervised several teams with responsibilities such as marine, underwater recovery, fatal crash investigations, and the department's DDACTS program. Lieutenant Troutman is currently completing his BS degree in Political Science at Towson University.



## **Panel 5: Multi-modal Application and Analysis Panel**

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### **Lisa Park**

**Research Analyst**

**American Transportation Research Institute**

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As a Research Analyst with the American Transportation Research Institute, Lisa Park has studied a variety of freight transportation topics. In particular, Ms. Park uses spatial data to research truck safety and conduct accident data analysis. Using state-level crash records and GIS software, Ms. Park has developed a methodology to locate and analyze locations where large truck rollover crashes are most prevalent. As part of this three phase project, the rollover locations identified through the Phase 1 research are disseminated to trucking industry stakeholders in state-specific summary reports and through an online interactive map. Ms. Park holds a BA from the University of Kentucky.

### **Michelle A. Barnes, BSCE, MPS, MSGIS**

**Senior Research Engineer**

**UMTRI**

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Ms. Barnes is a Senior Research Engineer in the Engineering Systems Group and works closely with the Transportation Data Center at UMTRI. She has 24 years experience in transportation engineering encompassing both transportation agency experience and applied research, and is a recognized expert in the area of roadway data fusion and analysis of spatial data using geographic information system tools. She is also the lead expert within UMTRI for map databases that characterize roadway attributes.

### **Marco Merens**

**Safety Data Analysis Officer**

**ICAO**

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Marco Merens is safety data analysis officer in ICAO's Integrated Safety Management section. He started his career as an aeronautical engineer at Airbus in Toulouse working on the design of avionic and flight control systems for the A340 and A380. He then went back to his home country of Luxembourg to join the CAA where he held various positions from head of the airworthiness department to the manager of the CAA's occurrence reporting and analysis system, before joining ICAO in 2009 at his current position.

**Marc Berryman, ENP**  
**Product Development Manager**  
**NENA**

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Marc Berryman has a Masters Degree in Geographic Information Systems (GIS) and over 16 years of experience working with both public and private organizations. He has worked as a GIS consultant for several Fortune 100 companies, and is the former GIS Engineer for the Greater Harris County 9-1-1 Emergency Network. Marc has provided instruction on GIS and Next Generation 9-1-1 at numerous national and regional conferences. He is the author of the 2008 publication "Addressing Systems; A Training Guide For 9-1-1". With over 11 years of 9-1-1 operational experience, Marc is able to bring complex subjects down to an understandable level with his dynamic and interactive teaching methods. Marc is currently employed with Digital Data Technologies Incorporated, where he is the 9-1-1 GIS Product Development Manager.

## **Panel 6: Marine Safety Panel**

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### **Julia Powell**

**Electronic Navigational Chart Technical Director**

**NOAA**

Julia Powell is the Electronic Navigational Chart Technical Director, and represents the United States on various standards committee's in the development of the ENC product specification. The ENC product specification is the international standard for countries to build electronic charts in a specific format to be used on board ship's navigation systems. She also ensures that the US products comply with the relevant international standards, and leads the development of the next generation electronic charting standards. Ms. Powell has been with NOAA since 1997 and has a Bachelor's degree in Geological Sciences from Cornell University and a Master's Degree in Computer Systems Management from the University of Maryland.

### **Peter Noy**

**IT Specialist (Geospatial Management/Information Assurance)**

**US Coast Guard**

Mr. Noy works for the Coast Guard Geospatial Management Office (GMO – CG-63) on a number of Coast Guard geospatial initiatives, including Coast Guard Geospatial Data Sharing, Coast Guard Geospatial Convergence, Coast Guard Geospatial software support, and DHS Geospatial Working Group Efforts. He also serves as Asset Manager for several existing Coast Guard Enterprise applications, including Coast Guard Enterprise Geographic Information System (EGIS), Search and Rescue Optimal Planning System (SAROPS), and Long Range Identification and Tracking (LRIT). Before joining the Coast Guard, he was a geographer at the Baltimore District U.S. Army Corps of Engineers managing the Planning Division Geographic Information System. He received his MA in Geography and Environmental Planning at Towson University.

### **Co-presenter/co-author**

**Rodney Martinez**

Rodney Martinez serves as sponsor's representative and subject matter expert for Coast Guard's GIS program. He holds a B.S. in Information Systems, Kennesaw State University, M.S. in Quality Systems Management National Graduate School, and a M.S in Information Technology Management, Naval Postgraduate School.

**James Dobbins, Ph.D.****Research Associate Professor of Civil and Environmental Engineering  
Vanderbilt University**

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Dr. Dobbins is a Research Associate Professor of Civil and Environmental Engineering at Vanderbilt University in Nashville, TN. He is the Director of the Vanderbilt Center for Transportation Research (VECTOR). Dr. Dobbins manages research projects related to transportation risk assessment, intermodal freight transportation, inland marine transportation, geographic information systems (GIS) and the development of transportation decision support systems. Dr. Dobbins earned a BS in Marine Transportation and Marine Engineering from the United States Merchant Marine Academy at Kings Point, NY. He completed his MS and Ph.D degrees in Civil Engineering at Vanderbilt University. He holds a dual U.S. Coast Guard license of 3rd Mate (unlimited gross tonnage, oceans) and 3rd Assistant Engineer (unlimited horsepower, steam, motor or gas turbine) and a commission as Commander in the U.S. Naval Reserve.

**Richard Ford****Technical Officer****(MAIB) United Kingdom's Marine Accident Investigation Branch**

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Richard Ford is the Technical Officer for the UK's Marine Accident Investigation Branch. He is responsible for the recovery of all electronic evidence from accident scenes. Widely accepted as the world leaders in VDR data recovery; the branch has successfully recovered 21 VDRs this year. Richard has previously worked for the UK's national mapping agency Ordnance Survey as a GIS specialist, responsible for designing and developing workflow and work management systems.

## **Panel 7: Rail, Pipeline, and Hazmat Safety Panel**

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### **Raquel Hunt**

**GIS Program Manager**

**Federal Railroad Administration**

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Ms. Hunt has been with the Federal Railroad Administration (FRA) since 2006, where her main responsibilities have been the development, implementation, and management of the FRA's geographic information systems (GIS). Before joining FRA, Ms. Hunt was an onsite contractor with the Bureau of Transportation Statistics, where she was the technical lead on the National Transportation Atlas Database. She also participated on a taskforce to restructure the Commodity Flow Survey. Ms. Hunt has a BS in Geography from Old Dominion University and a Masters in Geography from George Mason University with a Graduate Certificate in Geographic Information Sciences.

### **Ed Wells**

**Geographic Information System (GIS) Manager**

**Office of Enterprise Web Portal and GIS (EWPG)**

**Department of Information Technology (IT)**

**Washington Metropolitan Area Transit Authority (WMATA)**

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Ed Wells is the GIS Manager for the Washington (DC) Metropolitan Area Transit Authority. He has over twenty-five years' experience as a GIS manager and consultant in the public and private sectors. He holds a BA in Human Biology from Stanford University and a Master of Public Management degree from Carnegie Mellon University. He is past president of the Urban and Regional Information Systems Association (URISA).

### **Eric Williams**

**Coordinator – Damage Prevention and Public Awareness**

**Pipeline Safety and Integrity Department**

**Access Midstream Partners, LP**

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Mr. Williams is currently the Coordinator of Damage Prevention and Public Awareness at Access Midstream Partners (formerly known as Chesapeake Midstream Partners) in Oklahoma City, OK. His role in the Pipeline Safety department is to coordinate and lead education, outreach and training efforts for external audiences in regards to pipeline safety and awareness. Audiences include emergency responders, public officials, professional contractors and schools, among others. He is also responsible for internal management and oversight of programs to protect company assets from unintended line strikes or other safety related conditions. He has held this position since January 2011. Before his current role, he spent five years as the GIS Coordinator at Chesapeake/Access Midstream.

**Amy Nelson****GIS Manager****Pipeline and Hazardous Materials Safety Administration, U.S. DOT**

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Ms. Nelson is the GIS Manager for the US Department of Transportation, Pipeline and Hazardous Materials Safety Administration. She has worked on the National Pipeline Mapping System project since 2002. She holds a BA in Geography from the University of Mary Washington and an MA in Geographic Information Systems from Clark University.

## **Panel 8: Closing Panel**

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### **David Cowen, Ph.D.**

**Distinguished Professor Emeritus**

**University of South Carolina**

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Dr. Cowen is Distinguished Professor Emeritus and is a former chair of the Department of Geography at the University of South Carolina. While an active faculty member, he started one of the earliest academic GIS programs, and advised 14 Ph.D. and 47 masters students to completion of their degrees. In addition to his university activities, Dr. Cowen is the current Chair of the National Geospatial Advisory Committee. He also chaired the Mapping Science Committee of the National Research Council for six years, and is a member of the NRC Board on Earth Sciences and Resources and he recently chaired the NRC Study Committee "Land Parcel Databases: A National Vision." Professor Cowen served as the first elected president of the AAG GISS specialty group, and ran the group's central office for more than 20 years. He was one of the cofounders of UCGIS. He has also served as the President of the Cartography and Geographic Information Society (CaGIS). Dr. David Cowen received his BA (1966) and MA (1971) in Geography from the State University of New York at Buffalo, and his PhD. in Geography from The Ohio State University in 1971.

### **Allen Carroll**

**Program Manager**

**ArcGIS Online content**

**Esri**

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Allen Carroll is Program Manager, ArcGIS Online Content at Esri. He leads a team that regularly publishes map-based stories and narratives, and that develops innovative ways to utilize maps and geographic information systems as storytelling platforms. In addition, he helps guide strategy for organizing Esri's online content and for serving its global user communities. Allen came to Esri after 27 years at the National Geographic Society. As chief cartographer at NGS, he was deeply involved in the creation of the Society's renowned reference and wall maps, globes, and atlases. He led the creation of the Seventh and Eighth editions of the World Atlas, incorporating satellite imagery and innovative thematic maps into the editions and integrating them for the first time with interactive Web resources. He has spearheaded the publication of many new maps and Web resources, ranging from decorative wall maps and supplement maps for National Geographic magazine to special projects featuring biodiversity, conservation, and indigenous cultures. He has served as a member of the National Geospatial Advisory Committee.

# GEOGRAPHIC INFORMATION SYSTEMS IN TRANSPORTATION SAFETY

## NTSB Staff Technical Panelist Biographies

### **Christopher Babcock**

**Aerospace Engineer, Vehicle Recorder Division  
National Transportation Safety Board**

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Mr. Babcock has been employed at the NTSB since 2007 in the Office of Research and Engineering as an aerospace engineer in the Vehicle Recorder Division. He has served as group chairman in several foreign and domestic major aviation and marine accident investigations and is also responsible for performing sound spectrum analysis in support of accident investigations. Before joining the NTSB, Mr. Babcock was an acoustics/vibration engineer at Gulfstream Aerospace in the areas of interior cabin noise control, component vibration, sonic boom acceptability, signal processing, community noise, airport access, and FAR part 36 certification.

### **Ivan Cheung, Ph.D.**

**Transportation Safety Analyst, Safety Research Division  
National Transportation Safety Board**

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Dr. Cheung is a transportation research analyst in the NTSB's Office of Research and Engineering, Safety Research Division. Dr. Cheung completed his PhD at the University of California, Los Angeles. Before joining the NTSB, he worked for the Insurance Institute for Highway Safety. His research focuses on using statistical and spatial analytics to study transportation safety issue across all modes of transportation. He also uses geographic information systems (GIS) and other geospatial technologies and techniques in his research.

### **Robert Dodd, Sc.D.**

**Chief, Safety Research Division  
National Transportation Safety Board**

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Dr. Dodd has worked at the NTSB since 2007 as Chief of the Safety Research Division, providing oversight to the NTSB's research and data analysis activities. Dr. Dodd was employed at the Safety Board previously, from 1986 to 1988, as a Transportation Safety Program Specialist, and completed a safety study on air medical helicopters and participated in a special investigation on operational errors at Chicago O'Hare's ATC tower. Before joining the NTSB, Dr. Dodd managed a research firm that addressed transportation safety, occupational safety, and public health issues. Dr. Dodd also served as a consultant to the Flight Safety Foundation, serving as its Manager of Data Systems and Analysis. He is also an associate faculty member in the Department of Health Policy and Management at the Johns Hopkins University Bloomberg School of Public Health in Baltimore.



**Eric Emery, Ph.D., D-ABFA****Transportation Disaster Assistance Specialist, Transportation Disaster Assistance Division  
National Transportation Safety Board**

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Dr. Emery currently serves as a Coordinator for Medicolegal Operations with the Transportation Disaster Assistance Division of the National Transportation Safety Board (NTSB). He received his PhD in Anthropology from Texas A&M University and has been actively involved in victim search and recovery work since 1993. Dr. Emery joined the NTSB from the Department of Defense's Joint POW/MIA Accounting Command-Central Identification Laboratory (JPAC-CIL), where he worked in medicolegal operations as a human remains recovery leader and lab manager for the CIL Annex Pearl Harbor. He has conducted mass fatality investigation, scene mapping, and recovery operations in Iraq, North Korea, Vietnam, Laos, Cambodia, South Korea, Papua New Guinea, Suriname, Palau, and throughout Europe.

Dr. Emery has helped develop interagency and international training programs in forensics and mass fatality recovery work, to include a five-year collaboration with the Department of Justice's International Criminal Investigative Training Assistance Program (ICITAP) in Bogota, Colombia. He holds a professional certificate in project management from George Mason University and is currently working on a certificate in Geographic Information Systems (GIS). Dr. Emery is a Diplomate of the American Board of Forensic Anthropology and an active member of the American Academy of Forensic Sciences. He has consulted for the U.S. Department of Defense's Forensic Sciences Working Group and is a qualified technical assessor of forensic laboratories with the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB).

**Bill English****Senior Air Safety Investigator, Major Investigations Division, Office of Aviation Safety  
National Transportation Safety Board**

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Mr. English is a Senior Air Safety Investigator in the Major Investigations division. He has been in that position since 2005, and has been with the Board since 1999. His main responsibilities are to conduct investigations of major air carrier accidents in the U.S. and assist foreign government air safety agencies on similar cases in the host country. He has led the investigation team in many major accidents including the Continental Airlines 737 in Denver, the Brazilian B737 and Legacy jet midair collision, and the UPS B747 cargo fire. Mr. English also holds the collateral duty as agency point of contact for the development of technical capability in unmanned aircraft systems, and is trained on the MQ-9 Predator-B. Before joining the NTSB, he was an FAA Air Traffic Controller, Quality Assurance and instrument procedures specialist, working GPS Implementation. He is a commercial pilot and flight instructor and worked as a corporate and charter pilot, flew navigation test and evaluation, and began his flying as an airborne radio traffic reporter. Mr. English is a graduate of Embry-Riddle University, the USAF Mishap Investigation school, and is currently completing graduate work at Penn State in Geospatial Intelligence.

**Loren Groff, Ph.D.**

**National Resource Specialist, Safety Research Division  
National Transportation Safety Board**

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Dr. Groff is a National Resource Specialist for Safety Data Systems and Analysis in NTSB's Office of Research and Engineering, Safety Research Division. He assists accident investigations and conducts safety data analyses, and regularly represents the NTSB and United States in international aviation industry and government initiatives and working groups involving safety data sharing and analysis. He has managed or co-managed several NTSB safety studies since joining the NTSB in 2002, including weather-related general aviation accidents, the introduction of glass cockpit avionics into light aircraft, and most recently, the safety of experimental amateur-built aircraft. Before joining the NTSB, he held aviation positions as a flight instructor and as a regional airline pilot. Dr. Groff received his M.A. and Ph.D. from Wichita State University in Human Factors Psychology.

**Joseph Kolly, Ph.D.**

**Director, Office of Research and Engineering  
National Transportation Safety Board**

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Dr. Kolly became the Director of the Office of Research and Engineering in 2009 and is responsible for oversight of the NTSB's three laboratory divisions; Materials, Vehicle Recorders, and Vehicle Performance, as well as the Safety Research Division. Dr. Kolly began his career with the NTSB in 1998 as a mechanical engineer where he served as an investigator on numerous major investigations, most significantly the fire explosion investigation of the 1996 TWA Flight 800 accident, where he led applied research and testing programs to investigate jet fuel chemistry, airplane fuel tank thermochemistry, jet fuel flammability and ignition energy, and computational and experimental fuel tank combustion modeling

**Rafael Marshall, Ph.D.**

**Project Manager, Report Development Division, Office of Highway Safety  
National Transportation Safety Board**

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Dr. Marshall has been with the NTSB since 1999. He has served as project manager for reports exploring issues on medical impairment, illicit drug use, fatigue, distraction, and driver training. He has managed a hearing on noncommercial driver medical oversight and a forum on truck and bus safety. He has served as a technical panel member on forums and symposia ranging from driver's education to transportation safety and the use of sedating or impairing medications. His Ph.D. is in cognitive psychology from George Mason University, and his M.P.H. in epidemiology from The George Washington University.

## **Kristin Poland, Ph.D**

**Senior Biomechanical Engineer, Vehicle Performance Division  
National Transportation Safety Board**

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Dr. Poland has been employed at the NTSB since 1998 as a senior biomechanical engineer in the Vehicle Performance Division. She developed NTSB methodology for occupant kinematics investigations; performed occupant kinematics simulations and injury causation analysis for the special investigation report on bus crashworthiness (1999) and the safety study for airbag-equipped general aviation aircraft; developed vehicle dynamics and occupant kinematics simulations for investigations of the 1999 motorcoach accident in New Orleans, Louisiana; the 2000 school bus/train collision in Conasauga, Tennessee; the Hampshire, Illinois, specialty bus collision; and the Osseo, Wisconsin, motorcoach/tractor trailer collision. She analyzed occupant motion during highway, rail, and aviation crashes; participated in the human performance investigations of USAir 427, TWA 800, EgyptAir 990, American Airlines 587, and the *Crown Princess* marine accident. Dr. Poland has published multiple papers for the Society of Automotive Engineers (SAE) and the American Society of Mechanical Engineers (ASME).

## **Eric Stolzenberg**

**Senior Investigator, Office of Marine Safety  
National Transportation Safety Board**

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Eric Stolzenberg has been with the Office of Marine Safety at NTSB since January 2008. He has served as chairman for both naval architecture and marine engineering groups on several accidents. He was also the Investigator in Charge of the 2010 collision of the passenger ferry Andrew J. Barberi with its slip on Staten Island. Mr. Stolzenberg received a Bachelor of Engineering degree in Naval Architecture from State University of New York Maritime College in 1991 and subsequently sailed worldwide as engineering officer aboard very large crude oil tankers, chemical products tankers and advanced fiber-optic cable-laying vessels. Before joining the NTSB, Mr. Stolzenberg worked as naval architect at John J. McMullen Associates and later with Rolls-Royce Seaworthy Systems, both full service naval architecture and marine engineering firms. Mr. Stolzenberg also served in the Navy Reserve to the rank of Lieutenant. At this time, he maintains his Coast Guard license and is certified as International Safety Management (ISM) auditor by the International Register of Certificated Auditors.

**John B. Vorderbrueggen, PE**  
**Chief, Pipeline and Hazardous Materials Investigations Division**  
**National Transportation Safety Board**

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Mr. Vorderbrueggen joined the NTSB in 2012 as the Division Chief, Pipeline and Hazardous Materials Investigations. Prior to joining the NTSB, he worked in the DOE Office of Health, Safety, and Security interfacing with the Defense Nuclear Facilities Safety Board. Prior to joining DOE, Mr. Vorderbrueggen spent more than eight years as an Investigations Supervisor at the U.S. Chemical Safety Board. He was the lead investigator on more than 13 major accidents at industrial facilities in the U.S. He has more than 37 years of experience in design, process safety, regulatory programs, maintenance management, human factors, and workforce training. He has extensive experience in incident investigations, Process Safety Management, and fitness-for-service engineering analyses. Industries include chemical, hazardous materials transportation, refining, pharmaceutical, and nuclear and fossil power. He served on the Mary Kay O'Connor Process Safety Center Technical Advisory Committee. He holds a BSME from California Polytechnic State University and is a registered professional engineer.